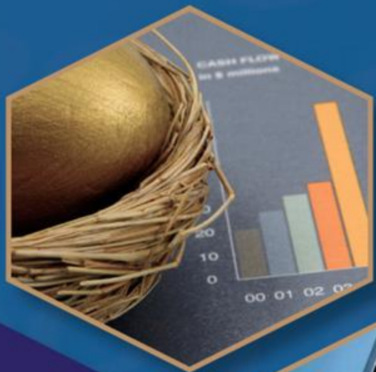

State Employees' Retirement System of Illinois

Valuation Results as of June 30, 2015

October 27, 2015

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries
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Agenda

- Valuation Results
  - Changes since last year
  - Funded status
  - Change in funded ratio
  - Cash flow comparison
  - Contribution requirement
  - Contribution shortfall
- Summary
- GASB Nos. 67 and 68 Results
- Appendix A: Projection Results: Phase-in of investment losses in the Actuarial Value of Assets (AVA)
- Appendix B: Participant data

Valuation Results: Changes Since Last Year

- Public Act 98-0599 (Effective June 1, 2014)
  - Ruled unconstitutional and void in its entirety by the Circuit Court
- Public Act 99-0232 (Effective August 3, 2015)
  - Mandates the five state systems to conduct actuarial experience studies every 3 years as opposed to 5 years
    - Next SERS experience study would occur after the June 30, 2016, valuation
- Board adopted policy for calculating the Actuarially Determined Contribution (ADC) for accounting purposes only
  - Under policy, ADC is equal to the normal cost plus a 25-year level percent of capped payroll closed-period amortization of the unfunded actuarial liability as of June 30, 2015

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Valuation Results: Funded Status ($ in millions)

	June 30, 2014	June 30, 2015
Actuarial Accrued Liability	$39,527	$40,743
Market Value of Assets (MVA)	$14,582	$15,259
Unfunded Actuarial Accrued Liability - MVA Basis	$24,945	$25,484
Funded Ratio - MVA Basis	36.89%	37.45%
Actuarial Value of Assets (AVA)	$13,316	$14,742
Unfunded Actuarial Accrued Liability - AVA Basis	$26,211	$26,001
Funded Ratio - AVA Basis	33.69%	36.18%

Valuation Results: Change in Funded Ratio

Change in Funded Ratio

Funded Ratio 6/30/2014	**33.69%**
Expected [1]	**2.74%**
Contribution Shortfall	**-1.80%**
Liability Experience	**0.41%**
Asset Experience (10.74% Return on AVA)	**1.14%**
Funded Ratio 6/30/2015	**36.18%**

[1] *Assumes total contributions equal to normal cost plus interest*

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Valuation Results: Cash Flow Comparison ($ in millions)

Cash Flow Comparison

	FYE 2015	Projected FYE 2016	Projected FYE 2017	Projected FYE 2018	Projected FYE 2019
Employer Contribution	$1,804	$2,045	$2,014	$2,057	$2,091
Employee Contribution	$266	$254	$255	$261	$267
Benefits	($2,058)	($2,150)	($2,283)	($2,419)	($2,561)
Expenses	($17)	($21)	($21)	($22)	($22)
Net Cash Flow	($5)	$128	($35)	($123)	($225)

- Beginning in 2017, benefits exceed State and employee contributions.
- From 2017 to 2033, the percentage of investment income needed to pay ongoing benefits increases from approximately 2.9 percent to 57.5 percent.
- This implies that a lower level of investment income is projected to be available for potential asset growth.

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Valuation Results: Contribution Requirements ($ in millions)

FY 2017 State contribution	Amount	Rate
Basic Funding	$ 2,014	42.805%
Debt Service	83	1.763%
Total	$ 2,097	44.568%

Compares to FY 2016 contribution	Amount	Rate
Basic Funding	$ 2,045	43.880%
Debt Service	80	1.718%
Total	$ 2,125	45.598%

Valuation Results: Contribution Shortfalls ($ in millions)

FY 2017	Amount	Rate
Actuarially Determined Contribution	$ 2,389	50.753%
Basic funding	2,014	42.805%
Shortfall	$ 375	7.948%

FY 2016	Amount	Rate
Annual Required Contribution	$ 2,197	47.141%
Basic funding	2,045	43.880%
Shortfall	$ 152	3.261%

- The Annual Required Contribution (ARC) for FY 2016, is based on an open 30-year level percent of capped payroll amortization policy.
- The term ARC is no longer in the GASB Statements, thus the Board adopted a policy for developing an Actuarially Determined Contribution (ADC) beginning with the June 30, 2015, valuation which determines the FY 2017 ADC
  - Under this policy, the ADC is equal to the normal cost plus a 25-year level percent of capped payroll closed-period amortization of the unfunded actuarial liability.

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Summary

- 4.67 percent investment returns decreased the funded ratio on a MVA Basis
- Recognition of deferred investment gains increased funded ratio on an AVA basis
- State contribution requirements continues to increase
- Funded ratio grows slowly through 2033 to 54 percent and then increases rapidly to 90 percent in 2045

GASB Nos. 67 and 68 Results

- GASB Statements Nos. 67 and 68 de-link financial reporting from funding
- GASB Statement No. 67 replaced GASB Statement No. 25 for pension plan financial reporting, effective with fiscal year ending June 30, 2014
- GASB Statement No. 68 replaced GASB Statement No. 27 for employer financial reporting, effective with fiscal year ending June 30, 2015
  - Required information under GASB Statements Nos. 67 and 68 is provided in a separate report
  - Total Pension Liability (TPL) is calculated using the Entry Age Normal actuarial cost method and a single discount rate of 7.02 percent

GASB Nos. 67 and 68 Results

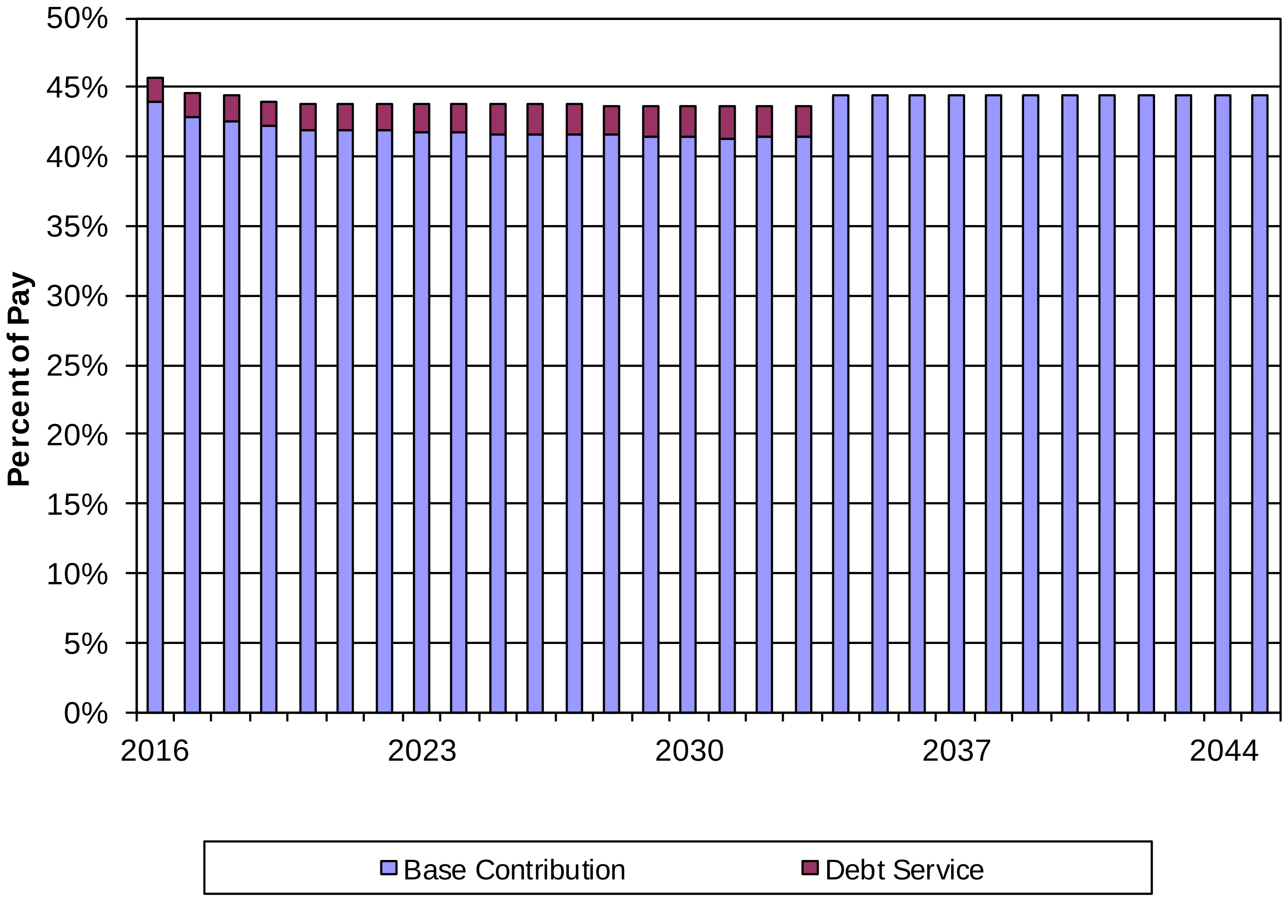
Statutory Requirements	
Actuarial Cost Method	Projected Unit Credit
Discount Rate	7.25%
Valuation Date	June 30, 2015
Actuarial Accrued Liability	$40,743
Actuarial Value of Assets	$14,742
Unfunded Actuarial Accrued Liability	$26,001
Funded Ratio	36.18%
Covered Payroll	$4,454
Unfunded Actuarial Accrued Liability as a Percentage of Covered Employee Payroll	583.82%
Total FY 2015 Employer Contribution	$1,804

GASB 67/68 Requirements	
Actuarial Cost Method	Entry Age Normal
Single Discount Rate	7.02%
Measurement Date	June 30, 2015
Total Pension Liability	$43,267
Plan Fiduciary Net Position	$15,259
Net Pension Liability	$28,008
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	35.27%
Covered Payroll	$4,454
Net Pension Liability as a Percentage of Covered Employee Payroll	628.88%
Total FY 2015 Pension Expense	$2,490

Dollars in millions

Appendix A: Projection Results: Phase-in of investment losses in the AVA

Projection Results: Phase-in of investment losses in the AVA: Contributions - Rate



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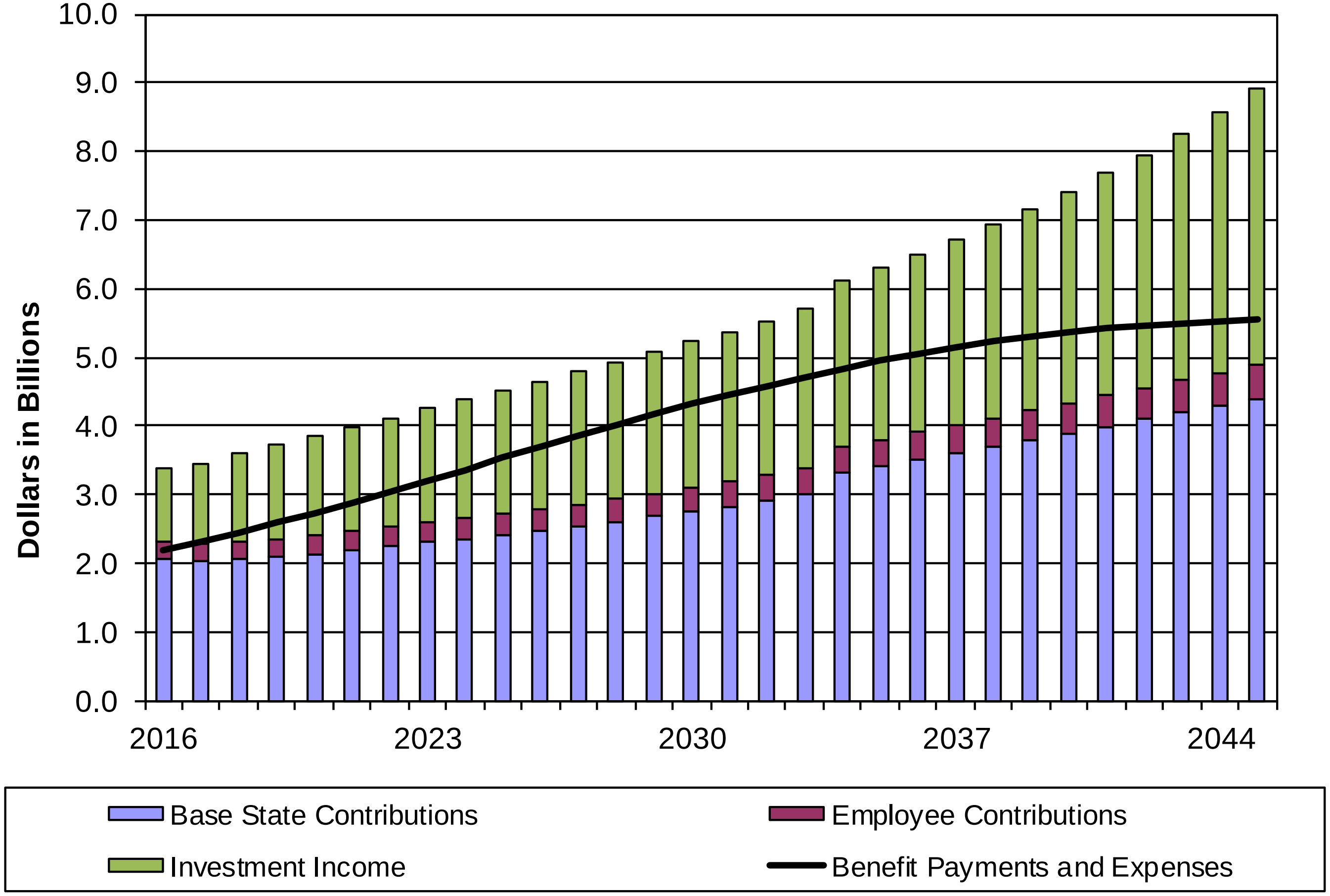
Projection Results: Phase-in of investment losses in the AVA: Cash Flow Comparison



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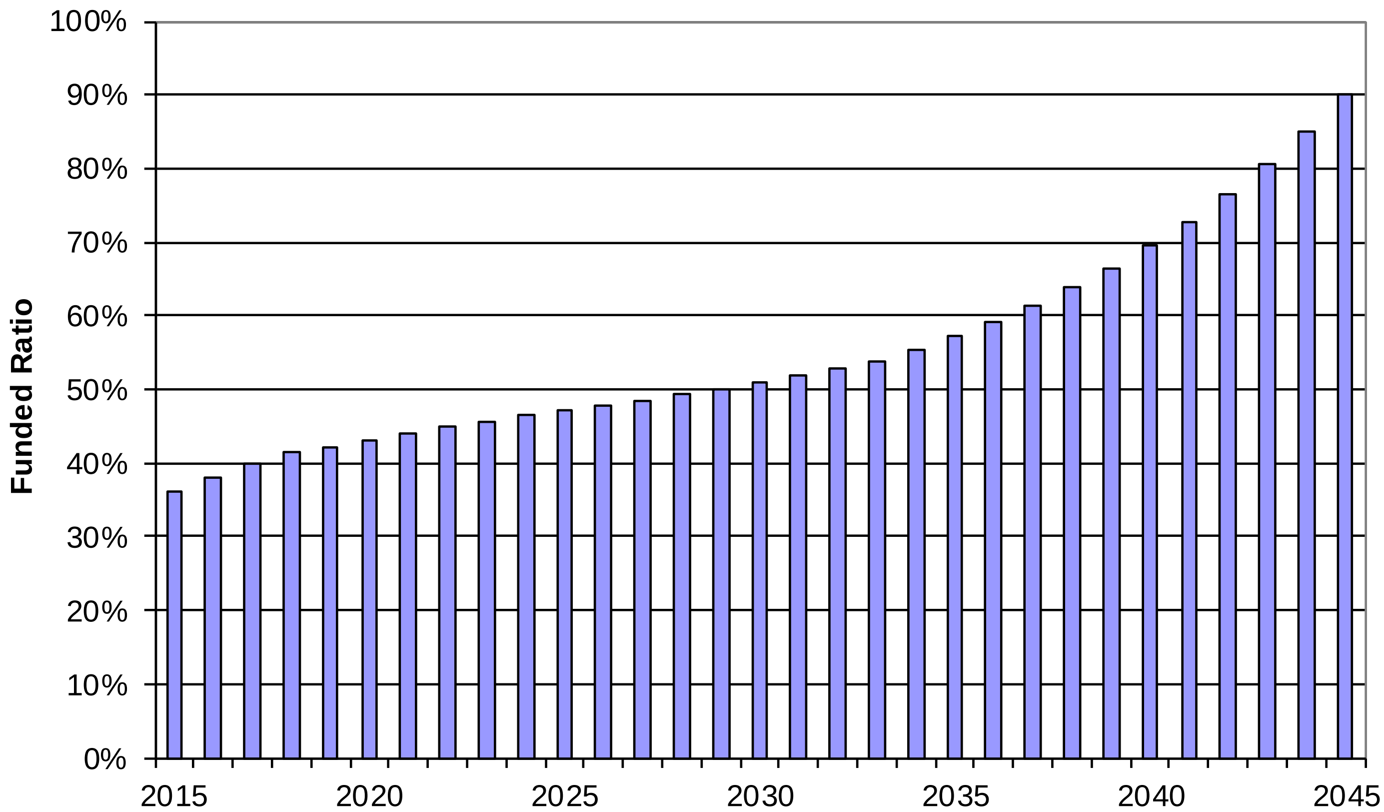
Projection Results: Phase-in of investment losses in the AVA: Funded Ratio



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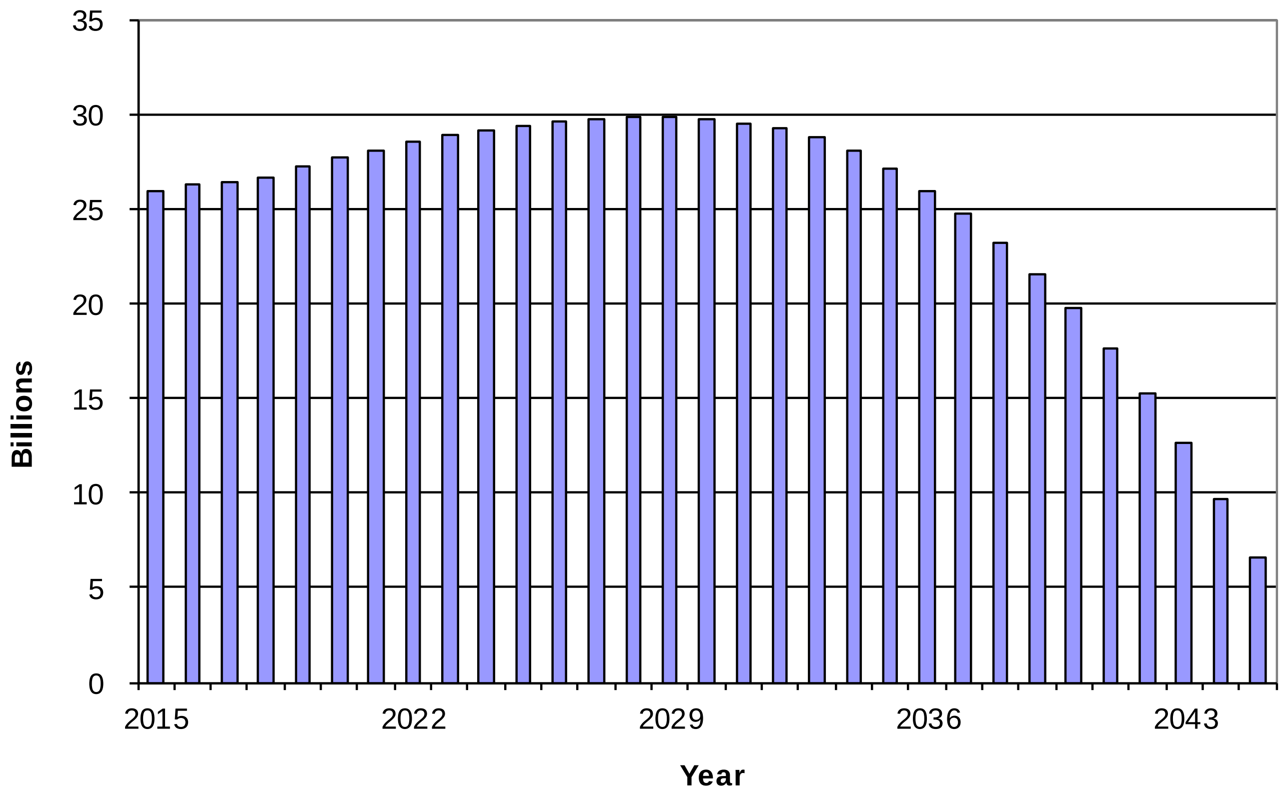
Projection Results: Phase-in of investment losses in the AVA: Unfunded Actuarial Accrued Liability



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Appendix B: Membership Data

Active Members

	June 30, 2014	June 30, 2015
Number as of Valuation Date	62,844	63,273
Covered Payroll for Fiscal Year	$4.416 Billion	$4.454 Billion
Base Payroll at End of Year	$4.289 Billion	$4.371 Billion
Average Annual Earnings	$68,242	$69,084

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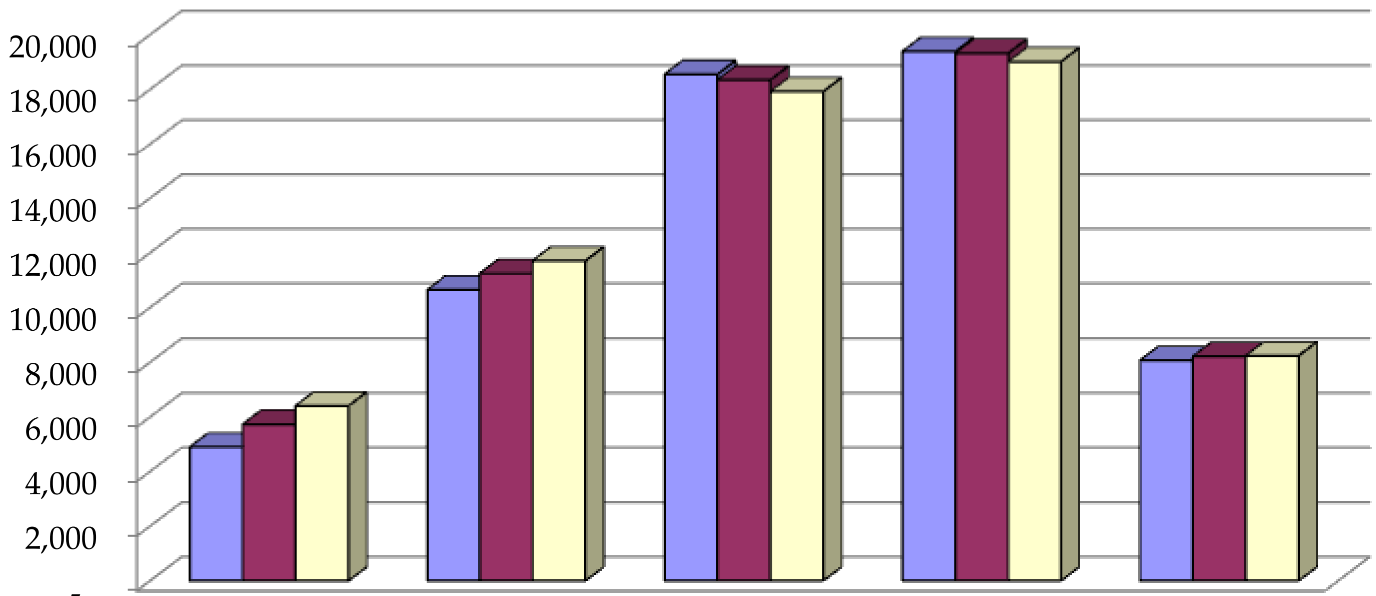
Age Distribution of Active Participants



	Under 30	30-39	40-49	50-59	60+
2013	4,899	10,645	18,552	19,385	8,064
2014	5,729	11,239	18,346	19,321	8,209
2015	6,402	11,705	17,921	19,012	8,233

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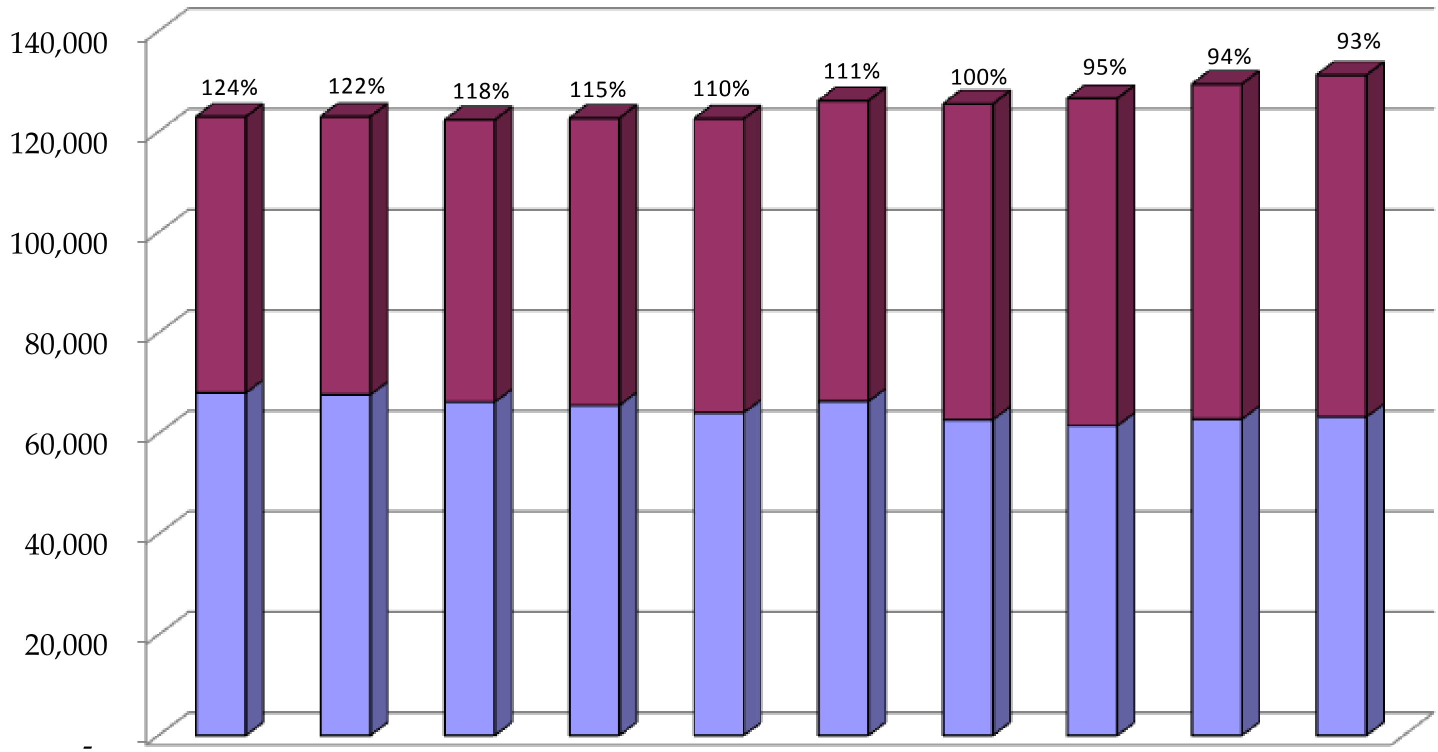
Current Benefit Recipients

	June 30, 2014	June 30, 2015
Retirees	53,478	54,802
Survivors	10,819	10,889
Disabled	2,312	2,263
Eligible for Deferred Benefits	225	232
Total	66,834	68,186
Total Benefits	$1.949 Billion	$2.069 Billion
Average Benefits	$29,161	$30,348

Total Membership



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Benefit Recipients	54,868	55,265	56,111	57,099	58,392	59,786	62,788	65,050	66,609	67,954
Actives	68,075	67,699	66,237	65,599	64,143	66,363	62,729	61,545	62,844	63,273

Ratio of Actives to Benefit Recipients for each year is shown above the chart

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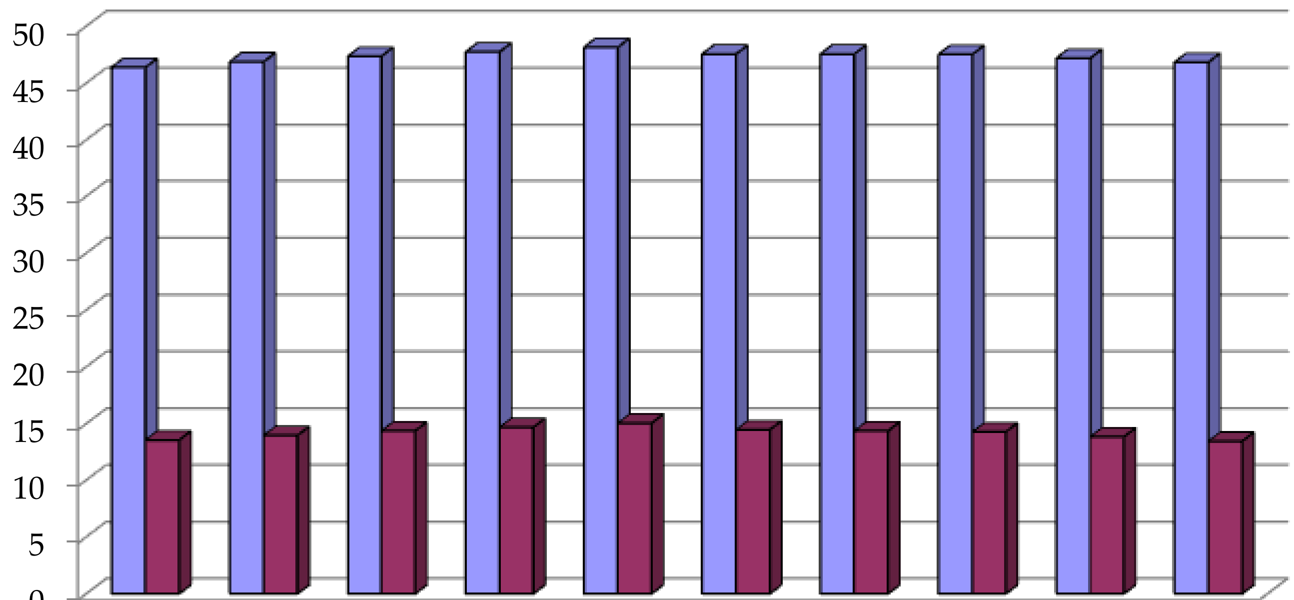
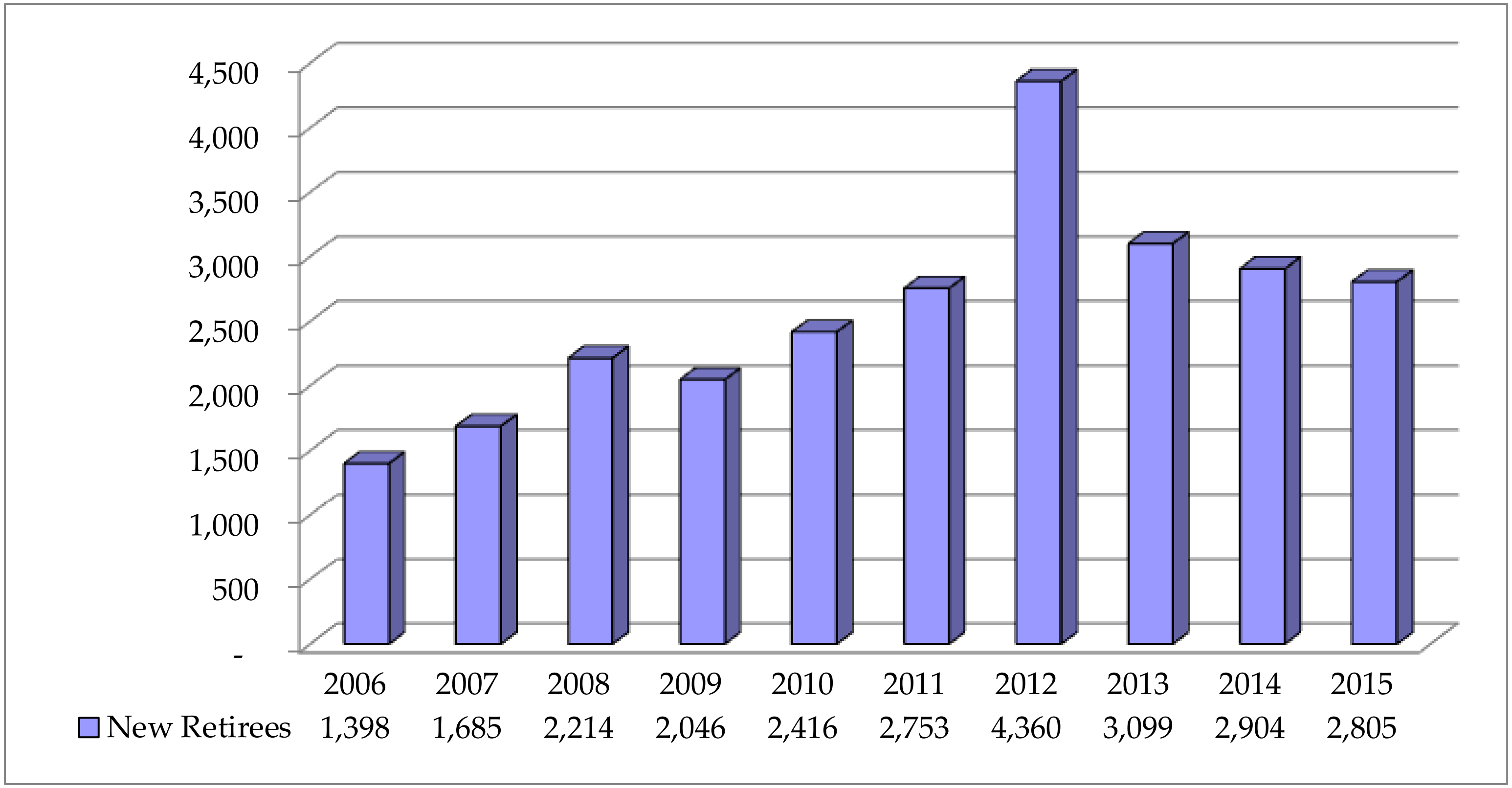
Average Age and Credited Service for Active Participants



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Average Age	46.37	46.87	47.35	47.73	48.14	47.54	47.54	47.52	47.17	46.82
Average Service	13.56	13.96	14.36	14.68	15.04	14.46	14.36	14.27	13.84	13.45

New Retirees



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Questions

Disclosures

- Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this presentation concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- The actuary submitting this presentation (Alex Rivera) is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.
- The primary purpose of the actuarial valuation is to measure the financial position of SERS.

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Disclosures

- The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The major actuarial assumptions used in this analysis were provided by and are the responsibility of SERS. We are unable to judge the reasonableness of some of these assumptions without performing a substantial amount of additional work beyond the scope of the assignment.
- Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.
- This is one of multiple documents comprising the actuarial report for the SERS actuarial valuation. Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the full actuarial valuation report as of June 30, 2015.
- If you need additional information to make an informed decision about the contents of this presentation, or if anything appears to be missing or incomplete, please contact us before relying on this presentation.